

Title (en)

A FILTER AND A METHOD FOR CHECKING THE SUITABILITY OF A FILTER ELEMENT

Title (de)

FILTER UND VERFAHREN ZUR ÜBERPRÜFUNG DER EIGNUNG EINES FILTERELEMENTS

Title (fr)

FILTRE ET PROCÉDÉ DE VÉRIFICATION DE LA CONFORMITÉ D'UN ÉLÉMENT FILTRANT

Publication

EP 3413991 B1 20210811 (EN)

Application

EP 16712448 A 20160208

Priority

IB 2016000271 W 20160208

Abstract (en)

[origin: WO2017137790A1] The invention relates to a filter element (20) comprising: - a filter medium (21) having an axial channel (22); - end plates (25, 26) each sealingly covering one axial end of the filter medium (21), one end plate (25) having an opening (27) in fluid communication with the channel (22); - a hole (30) arranged on the liquid path, not on the filter medium, and a closing member (31) which is arranged in said hole and which is configured: - to prevent liquid from flowing through said hole when the liquid pressure upstream the closing member is below a predetermined threshold (Pth); - to open at said threshold (Pth), to allow liquid to flow through said hole; - and, after it has been opened, to remain open. The invention relates to a method for checking the suitability of a filter element, at first use after a filter element change. The method comprises: - monitoring the liquid pressure at a point of the liquid circuit located outside of and near a port (11, 12) of a filter housing (13) receiving the filter element, when an electrical pump (6) of the liquid circuit is restarted for the first time; - comparing the evolution of said monitored liquid pressure over time with a predetermined evolution over time of the liquid pressure at said point for a new reference filter element.

IPC 8 full level

B01D 35/14 (2006.01); **B01D 29/60** (2006.01); **B01D 35/153** (2006.01); **B01D 37/04** (2006.01)

CPC (source: EP US)

B01D 29/33 (2013.01 - US); **B01D 29/606** (2013.01 - EP US); **B01D 35/14** (2013.01 - EP US); **B01D 35/143** (2013.01 - US); **B01D 35/153** (2013.01 - EP US); **B01D 35/26** (2013.01 - US); **B01D 37/046** (2013.01 - EP US); **F01M 11/03** (2013.01 - US); **F01M 11/10** (2013.01 - US); **F02M 37/22** (2013.01 - EP US); **B01D 2201/291** (2013.01 - US); **B01D 2201/295** (2013.01 - EP US); **B01D 2201/4046** (2013.01 - EP US); **F01M 2011/035** (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2017137790 A1 20170817; **WO 2017137790 A8 20180920**; CN 108601999 A 20180928; CN 108601999 B 20220726; DK 3413991 T3 20211115; EP 3413991 A1 20181219; EP 3413991 B1 20210811; ES 2897720 T3 20220302; US 11071932 B2 20210727; US 2019070537 A1 20190307

DOCDB simple family (application)

IB 2016000271 W 20160208; CN 201680081251 A 20160208; DK 16712448 T 20160208; EP 16712448 A 20160208; ES 16712448 T 20160208; US 201616075594 A 20160208